ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

CLEAN CLOSURE GUIDANCE AND APPLICATION FOR QUALIFYING DISCHARGING FACILITIES AND DRYWELLS

December 2004

This document serves both as a guidance document and an application form for clean closure approval for qualifying discharging facilities and drywells. Please read the eligibility requirements for clean closure approval on page 3. Page 4 explains why a facility would be ineligible for clean closure.

The application is self explanatory and guides the applicant through the information pertinent to achieve a clean closure approval. Complete all requested information concerning the discharging facility(s) or drywell(s) for which clean closure is desired. The information required includes a description of the discharge history, locations, maps and facility design plans, wastestream characterization, a description of the treatment processes used, discharge flow rates, and a point of compliance.

ADEQ will not declare any clean closure application administratively complete until you submit the results of your sampling plan. We strongly recommend you seek ADEQ approval prior to initiating the plan to minimize the need for additional sampling.

When administratively complete, the closure plan can move forward. The required information is described on pages 11 through 14. If sampling identifies soil contamination above ADEQ's Soil Remediation Levels (SRLs) or Groundwater Protection Levels (GPLs), clean closure can still be achieved, if the completed closure plan demonstrates cleanup to those levels.

The applicant may wish to schedule a pre-application meeting to discuss the details of any previously completed site assessment work, or to review a proposed sampling and closure plan.

ADEQ will review every clean closure application to verify the following:

- The application is complete and the discharging facility(s) is eligible for clean closure approval.
- The discharging facility(s) is accurately located.
- The appropriate maps and facility design plans are provided; the chemical character of the wastestream is adequately defined; and the flow rates, volumes, and frequencies are provided.
- The point(s) of compliance are adequate to ensure compliance with Aquifer Water Quality Standards down gradient from the facility to be closed.
- Any soil clean-up, if necessary, meets the appropriate SRLs and GPLs.
- The proposed closure plan and final closure report ensure that the facility meets the requirements of clean closure according to A.R.S. § 49-252(D) and the conditions defined under A.R.S. § 49-201(5).

After verifying these items, ADEQ will draft a closure summary and clean closure approval letter based on all information submitted. Upon receipt of payment for ADEQ's services, the clean closure approval letter and closure summary will be sent to the Director for signature. A signed copy will then be sent to the applicant.

The entire clean closure process for wastewater and industrial facilities may take six to nine months, or longer depending on mitigating circumstances, such as incomplete application materials, an inadequate closure investigation, sampling results and site specific conditions that merit further investigation and the number of applications in process. Some industrial sectors, such as mines, may take significantly longer owing to the large quantities of data that must be collected.

CLEAN CLOSURE APPLICATION

(AN INITIAL APPLICATION FEE OF $1000 IS REQUIRED)

Applies to all eligible types of discharging facilities
and drywells
for which clean closure approval is requested.

December 2004

Arizona Department of Environmental Quality

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Aquifer Protection Program
Clean Closure Application

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A. INTRODUCTION

Arizona Senate Bill 1401, effective July 20, 1996, amended the Arizona Revised Statutes to allow an owner or operator of a discharging facility subject to the Aquifer Protection Program to request a clean closure approval without obtaining an individual Aquifer Protection Permit. A clean closure approval can be issued for a former discharging facility if the following conditions are met (A.R.S. § 49-201(5)):

1. The closure complies with all the terms of an existing Groundwater Quality Protection Permit or Aquifer Protection Permit, if one was issued for the discharging facility;

2. The closure eliminates all discharges from the facility to the greatest degree practical;

3. There is no reasonable probability that the facility will exceed Aquifer Water Quality Standards (AWQS) at the applicable point(s) of compliance due to a discharge; and,

4. As closed, the facility does not require post-closure monitoring or maintenance.

B. FACILITIES ELIGIBLE FOR CLEAN CLOSURE

1. Discharging Facilities

   A discharging facility is eligible for clean closure if one or more of the following has been obtained or was filed for its operation (A.R.S. § 49-252(A)):

   a. Either an Individual or General Aquifer Protection Permit (APP),

   b. Groundwater Quality Protection Permit (GWQPP), or

   c. Notice of Disposal (NOD).

2. Drywells

   Drywells undergoing closure that drain areas where hazardous substances are used, stored, loaded, or treated are eligible for clean closure without having previously obtained an APP or GWQPP (A.R. S. § 49-252(A)). Closure of such drywells can be achieved by either:

   a. Decommissioning the drywell, or

   b. Permanently altering the facility's waste/chemical management operations through the implementation of a Best Management Practices Plan (BMPP) so

that the potential for the drywell to receive unauthorized discharge is eliminated (See ADEQ guidance document entitled: *"Best Management Practices Plan (BMPP) for Drywells Draining Areas Associated with Industrial Activities that Use, Store, Load, or Treat Hazardous Substances"*).

If the facility undergoing closure fits any of the categories listed above and the owner or operator wishes to pursue a clean closure approval, a closure plan must be submitted within ninety days after notification of this intent has been given to the Aquifer Protection Program (A.R.S. § 49-252(B)).

C. FACILITIES NOT ELIGIBLE FOR CLEAN CLOSURE

Any discharging facility, except a drywell, that was operated without an NOD, GWQPP or APP permit must first apply for an APP prior to closure of the facility.

D. DETERMINATION OF ELIGIBILITY FOR CLEAN CLOSURE

The Aquifer Protection Program will determine, within sixty days upon receipt of a complete closure plan, whether the facility closure can meet the definition of clean closure (A.R.S. § 49-252(C)). One of the following conclusions will result from the review:

1. If the closure plan meets clean closure criteria, ADEQ will issue a letter of approval to the owner or operator and an Aquifer Protection Permit will not be required (A.R. S. § 49-252(D)). Subsequent to approval, the owner or operator must implement the approved closure plan to qualify for clean closure status.

2. If clean closure cannot be achieved, ADEQ will request submittal of an application for an Aquifer Protection Permit (A.R.S. § 49-252(E)).

3. If clean closure cannot be achieved and the facility has an existing Aquifer Protection Permit, ADEQ will request the submittal of an application for permit amendment to address the closure activities, post-closure monitoring, and maintenance (A.R.S. § 49-252(E)).

If an APP is required, a permit application or a request to amend a permit must be submitted within ninety days from the notification date. If required, an extension to this time frame is provided under A.R.S. § 49-252(E).

E. CLEAN CLOSURE PLAN INFORMATION

For your discharging facility to be considered for clean closure approval through the Aquifer Protection Program, please submit the following information. Please attach additional pages as necessary and provide an explanation for any questions unanswered.

1. Owner, Operator, and Facility Information

a. Applicant

The person(s) responsible for compliance with the terms and conditions of this clean closure are:

1) Name of owner: _____
Mailing address: _____
_____
_____

Telephone Number: _____

2) Name of operator: _____
Mailing address: _____
_____
_____

Telephone Number: _____

b. Contact person

1) Name: _____
Mailing address: _____
_____
_____

Telephone Number: _____

c. Site information

1) Business name: _____
Address: _____
_____
_____

2) Legal description:

a) Parcel Number:_____
b) Township and Range

1. Township:_____
2. Range:_____
3. Section:_____
4. Quarters:_____

3) County: _____

4) Discharging Facilities Undergoing Clean Closure

The facilities undergoing clean closure, identified as the discharge locations, have the following coordinates:

Table 1: Discharging Facilities Undergoing Clean Closure

Discharging Facility[1]	Latitude	Longitude
	° ’ ”N	° ’ ”W
	° ’ ”N	° ’ ”W
	° ’ ”N	° ’ ”W
	° ’ ”N	° ’ ”W
	° ’ ”N	° ’ ”W

[1] If the discharging facility is a drywell (injection well) provide the drywell registration number.

2. Existing Environmental Permits

a. GWQPP Number(s): _____
_____

b. APP Number(s): _____
_____

c. NPDES permit number(s): _____
_____

d. Reuse permit number(s): _____

_____

e. RCRA permit number(s): _____

_____

f. Air Quality permit number(s): _____

_____

g. Solid Waste permit number(s): _____

_____

3. Maps and Facility Design Plans

a. Location Map

Provide a topographic or other appropriate map that identifies the following:

1) The facility location and contiguous land area,

2) An area of at least 3 miles surrounding the site boundary,

3) The location of all wells within ½ mile of the site boundary (provide details of well uses and construction as an attachment to this application), and

4) Land ownership and use of properties adjacent to the site.

b. Site Plan Map

Provide a facility site plan that illustrates the following:

1) The property lines;

2) Buildings and structures;

3) The location of water wells, monitor wells, injection wells, or drywells (provide details of well uses and construction, and a description of any borings or sampling points as an attachment);

4) The location(s) of any engineered design element(s) that affects the discharge(s) (provide a description of these structures as an attachment

to this application);

5) The location of all discharge points;

6) The location of any underground and/or above ground storage tank;

7) The location of any floor drain that discharges to a drywell or other collection facility;

8) The locations where chemicals, wastes, or hazardous substances are used, stored, loaded, or treated (provide a detailed list of these substances within the "Characterization of Discharge" section);

9) Contour lines to illustrate topography (or arrows to illustrate surface water flow directions); and,

10) The location of the proposed point of compliance. See also Part G., p. 15.

c. Facility Design Plan

Provide a drawing that illustrates the as-built design and configuration of the discharging facility undergoing clean closure.

4. Discharge History for all Facilities (if clean closure is for a drywell, see item 5, below)

Provide the following information about the discharge history of the facility.

a. The date facility began operation. _____

b. The facility closure date. _____

c. A brief description of the business. _____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

d. Characterization of past discharges.

1) Provide a concise description of the chemical, biological, and physical characteristics of the discharged wastestream. _____

2) Provide a description of the treatment processes used._____

3) Specify the rates, volume, and frequency of the past discharges. _____

5. For clean closures of drywells, provide discharge / operational history

Provide the following information about the discharge and operational history of the drywell:

a) The date the drywell began operation. _____

b) The date of drywell closure or proposed date.

_____

c) A brief description of the current and past business(es) located in the drywell drainage area. _____

_____
_____
_____
_____
_____
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_____

d) Summary of known or suspected discharge(s) that might have impacted the drywell.

_____
_____
_____
_____
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_____

e) List all information concerning the chemical, biological, and physical properties of any waste or hazardous substances used, stored, loaded, or treated within the drainage area of the drywell (attach MSDS sheets, if available).

_____
_____
_____
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_____
_____

F. Closure Plan

1. Initial Site Assessment

An initial site assessment is generally necessary to determine if clean closure is possible. This preliminary information must be collected and presented to ADEQ for consideration of clean closure. The site assessment entails a reconnaissance field investigation and a report that includes:

a. Background - Provide information, such as, facility location, name of company and/or names of individuals completing the investigation, and land use of the adjoining property;

b. Purpose & Scope - Give an explanation of why the investigation is necessary and what is being investigated;

c. Record Search - Review available federal, state and local environmental regulatory records, plan maps, aerial photographs, and conduct personal interviews with available property representatives;

d. Site History - Provide an evaluation of the specific facility undergoing closure, include a description of the facility, the details of all past operating practices, and the discharge history;

e. Site Inspection - Identify on a site plan map all potentially contaminated areas, resulting from past discharges;

f. Preliminary Sampling - Collect and analyze samples from all potentially contaminated soil, sludge, and/or wastewater. Collect sediment samples from the settling chamber for drywells. When sampling a drywell, please consult ADEQ's "Drywell Investigation Guidelines."

g. Report - Compile a site assessment report. This report may propose, depending on the site assessment results, that no further work be completed and clean closure approval be granted.

2. Sampling Plan Guidance

A sampling plan will contain many of the same elements as an initial site assessment with the addition of the development and completion of a thorough investigation and remediation plan. The closure plan should include a sampling plan which addresses the following:

a. Specific details of what will be investigated.

b. Explanation of why the investigation is necessary.

c. Identification of the type(s) of samples to be collected. Include the number of samples to be collected and the sampling intervals in the case of soil borings. The sampling plan and methods for any drywell closure should be consistent with ADEQ's Drywell Investigation Guidelines.

d. How the samples will be collected. Include a description of sampling protocols and the quality assurance/quality control (QA/QC) program to be used. The samples must be analyzed using EPA approved methods or Arizona state approved methods. All analyses must be performed by a laboratory licensed by the Arizona Department of Health Services (ADHS), Office of Laboratory Licensure & Certification for results to be valid. A list of certified laboratories can be obtained at the following address:

Arizona Department of Health Services
Office of Laboratory Licensure & Certification
1740 W. Adams Street, 203 North
Phoenix, AZ 85007
Phone: (602) 364-0720

e. The locations where the samples will be collected. This should include a site plan that illustrates areas to be investigated and the exact locations where the samples will be collected. Background samples should be collected to establish the ambient soil conditions at the site, especially if analyzing for metals.

f. A statement of when the sampling program will be undertaken. Specify the time frame for completion of the sampling program.

g. A description of any anticipated remediation activity(s) to be implemented, if Soil Remediation Levels (SRLs) or Groundwater Protection Levels (GPLs) are exceeded for contaminants detected during the investigation. This should include the details of disposal methods for all contaminated materials and verification sampling.

h. A description of the sampling program including the sampling methods, equipment, and quality control and quality assurance procedures used.

i. Copies of all laboratory analytical data sheets. The laboratory must be certified by ADHS for each analytical method used.

3. Closure Plan

Upon completion of the closure plan sampling phase, prepare a final report that documents all aspects of the closure. This report should include the items listed below, where applicable. If the closure plan includes decommissioning a drywell, the final report should also include documentation that closure of the drywell followed the procedures described in "Drywell Decommissioning Guidelines."

a. A detailed description of any clean-up completed at the site, including the excavation of any contaminated soil, sludge, sediment, or removal of any remaining chemicals and /or waste from the facility;

b. Information concerning the quantities and the chemical, biological, and physical characteristics of the materials removed from the facility or buried on-site;

c. Documentation of all analytical data and the ultimate fate and approved disposal location or containment methods and/or materials used for on-site burial of any contaminated soil, sludge, or sediment;

d. Approximate quantity and chemical, biological and physical characteristics of any material remaining at the site.

e. A description of the methods used to treat any materials remaining at the site;

f. A description of any methods used to control the discharge of pollutants from the closed facility;

g. Any limitations on the future land or water uses created as a result of the facility(s) prior operation or closure activities (document any Declaration of Environmental Use Restriction (DEUR) recorded according to A.R.S. §§ 49-152 through 49-159);

h. A description of any methods used to secure the closed facility;

i. A summary of all sampling, including verification sampling completed to prove that no significant environmental hazard remains as a result of the past facility discharges. Any residual soil contamination must meet the SRLs and the GPLs established by ADEQ. All analytical data must include copies of the analytical reports from the state approved laboratory and the chain of custody records for the samples;

j. A detailed description of the physical closure of the facility. If evidenced by sample data, it is acceptable to propose that no treatment or clean-up is necessary for clean closure;

k. Documentation that verifies all well closures, including drywells and monitor wells, must meet all local, state, and federal guidelines;

l. An estimate of the cost of closure; and

m. Conclusions and/or recommendations drawn from the completed closure plan.

G. Compliance with Aquifer Water Quality Standards

1. Point of Compliance

One or more points of compliance are required for clean closure under A.R.S. § 49-201(5). The proposed point of compliance for the facility shall be based on A.R.S. § 49-244.

Table 2: Point(s) of Compliance (POC)

Discharging Facility	Latitude of POC	Longitude of POC	Haz. (T)	Non-Haz.(T)
	° ' "N	° ' "W		
	° ' "N	° ' "W		
	° ' "N	° ' "W		

a. Provide information concerning the selection for the proposed point of compliance:_____
_____

b. A demonstration that the facility has not caused or contributed to a violation of Aquifer Water Quality Standards at an applicable point of compliance is required. To qualify for clean closure, any residual soil contamination must meet the appropriate soil remediation standards or groundwater protection levels as established by the ADEQ.

If the ambient conditions of an aquifer, irrespective of discharge from the facility undergoing closure, indicate that an Aquifer Water Quality Standard for a pollutant has been exceeded, the application shall also include a demonstration that no additional degradation of the aquifer, relative to that pollutant and determined at the applicable point of compliance, **has or will** occur as a result

of the past discharge from the facility:

_____
_____
_____
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_____
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_____

H. Geology/Hydrology

1. Hydrogeologic Study

A hydrogeologic study is required if pollutants have been discharged to the aquifer, the land surface, or the vadose zone. The study must define the vertical and lateral limits of any contamination resultant from the facility's past discharges or demonstrate that it has not caused or contributed to a violation of an Aquifer Water Quality Standard at the applicable point of compliance.

The hydrogeologic study should include the following:

a. A description of the surface and subsurface geology, including a description of all borings;

b. The location of any perennial or ephemeral surface water bodies;

c. Groundwater depth and flow direction, and if available, the aquifer characteristics;

d. Documentation of the existing quality of the water in the aquifers underlying the site, including, where available, the method of analysis and quality assurance and quality control procedures associated with the documentation; and

e. The proposed location of each point of compliance.

I. CERTIFICATION

[Please attach this page, with your signature, or a separate sheet with the following statement and your signature to your application. ADEQ will not process your application without a signature.]

I certify under penalty of law that this Clean Closure application and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including permit revocation as well as the possibility of fine and imprisonment for knowing violations.

NAME AND OFFICIAL TITLE

SIGNATURE

DATE SIGNED

Please check the box that applies:

Q owner Q operator Q both owner & operator